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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,127	03/30/2001	Bent S. Jensen	42390P10683	6836

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EXAMINER

LEZAK, ARRIENNE M

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,127

Applicant(s)

JENSEN, BENT S.

Examiner

Arrienne M. Lezak

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Examiner notes that Claims 1, 4-6, 8, 9, 11-19 & 21 have been amended, and no claims have been added or cancelled since issuance of the prior Office Action. Claims not explicitly addressed herein are found to be addressed within prior Office Action dated 16 December 2005 as reiterated herein below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Pub. US 2002/0150100 A1 to White in view of US Patent 5,828,835 to Isfeld.

3. Regarding Claims 1-3, 9, 10, 16, 21-23, White discloses a network system, method and apparatus for adaptive frame fragmentation, (Abstract; Figs. 1-13; paragraphs - #0013-0015: & Claims 1-37) comprising:

- a sending unit to transmit a first frame fragment, the first frame fragment including a first (payload – entire frame per pending Claim 10) data segment, extracted from a low priority frame and a first frame fragmentation control information appended to the end of the first data segment, the first frame fragmentation control information includes at least one of (i) a first frame

fragmentation indicator to specify whether a frame fragment is a first fragment generated from the frame, (ii) a frame fragment sequence number to specify a sequential order number assigned to the first frame fragment generated from the low priority frame, and (iii) a channel number, (paragraphs - #0030-0038; 0042-0052; & Claims 1-37), (Examiner notes that White clearly teaches appending a first identifying field to a first subframe, wherein said identifying field indicates the relative position of said first subframe within a fragmented frame, which obviously reads upon Applicant's appended "fragmentation control information" encompassing "a first frame fragmentation indicator to specify whether a frame fragment is a first fragment generated from the frame", or "a frame fragment sequence number to specify a sequential order number assigned to the first frame fragment generated from the low priority frame". Specifically, Examiner finds that one of ordinary skill in the art at the time of invention by Applicant would have obviously considered a first frame fragmentation indicator or a frame fragment sequence number to be "indicative of the relative position of a subframe within a fragmented frame" for purposes of adaptively identifying and fragmenting frames of lower priority into smaller subframes in order to minimize the time spent by frames of higher priority queuing for transmission over the link – paragraph #0033); and

- the sending unit to transmit a second frame fragment after transmitting the first frame fragment, the second frame fragment including a high priority frame and a second frame fragmentation control information appended to the

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end of the high priority frame, (per pending Claims 2 & 22), (paragraphs - #0030-0038; 0042-0052; & Claims 1-37); and

- the sending unit to transmit a third frame fragment after transmitting the second frame fragment, the third frame fragment including a second (payload) data segment extracted from the low priority frame and a third frame fragmentation control information appended to the end of the second data segment, (per pending Claims 3 & 23), (paragraphs - #0030-0038; 0042-0052; & Claims 1-37); and
- a receiving unit to receive the first, second and third frame fragments transmitted by the sending unit, (paragraphs - #0030-0038 & 0042-0052).

4. Though White clearly teaches frame fragmentation and the appending of a first identifying field, (frame fragmentation control information) to a first subframe, (White – Claims 1-37), White does not specifically enumerate the inclusion of a channel number within that first frame fragmentation control information. Isfeld Clearly teaches priority-based message fragmentation routing process wherein the message fragments clearly include a first frame fragmentation indicator, a last frame fragment indicator, a frame fragment sequence number, a channel number and the appending of data, (Isfeld - Figs. 13-17; Col. 27, lines 62-67; Col. 28; & Col. 29, lines 1-35), wherein it would have been obvious to one of ordinary skill in the art at the time of invention by Applicant to include the channel information in the first frame fragmentation control information appended to the end of the first data segment.

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5. The motivation to incorporate the Isfeld message/channel information fragment into the White priority-based message fragmentation method is found within White which enumerates a need for a technique which would minimize the latency and jitter exhibited by frame-based communication systems by adaptively identifying and fragmenting frames of lower priority into smaller subframes in order to minimize the time spent by frames of higher priority queuing for transmission over the link, (White – paragraphs # 0012 & #0033), wherein knowledge of the channel number is obviously necessary to the proper transmission and receipt of said frame data. Moreover, Examiner notes that the inclusion of channel information in the data packet was well known in the art at the time of invention by Applicant, thus in light White's teaching of appending data, inclusion of channel information within said data would have been obvious and as such, is found to be unpatentable. Thus Claims 1-3, 9, 10, 16, 21-23 are found to be unpatentable over the combined teachings of White and Isfeld.

6. Regarding Claims 4-8, 12-15, 17-20 & 24-28, the combined teachings of White and Isfeld are relied upon as noted herein. As noted above, White discloses a network system, method and apparatus for adaptive frame fragmentation incorporating a frame relay protocol, (paragraph #0043), comprising frames and frame fragments, (paragraphs #0043-0044), a first frame fragmentation indicator within the first frame fragmentation control information, (per pending Claims 4, 12, 17 & 24), a last frame fragment indicator, (per pending Claims 7, 15, 17 & 27), a frame fragment sequence number within the first frame fragmentation control information, (per pending Claims 5, 13, 18 & 25), (paragraphs #0045-0046, 0054 & 0055).

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7. Though White clearly teaches frame fragmentation, White does not specifically enumerate the inclusion of a channel number within the first frame fragmentation control information, (per pending Claims 6, 14, 19 & 26), and an extension indicator, (per pending Claims 8, 15, 20 & 28). Isfeld Clearly teaches priority-based message fragmentation routing process wherein the message fragments clearly include a first frame fragmentation indicator, (per pending Claims 4, 12, 17 & 24), a last frame fragment indicator, (per pending Claims 7, 15, 17 & 27), a frame fragment sequence number, (per pending Claims 5, 13, 18 & 25) and a channel number, (per pending Claims 6, 14, 19 & 26), (Isfeld - Figs. 13-17; Col. 27, lines 62-67; Col. 28; & Col. 29, lines 1-35). Again, as noted herein, Examiner finds that it would have been obvious to one of ordinary skill in the art at the time of invention by Applicant to include the channel information in the first frame fragmentation control information appended to the end of the first data segment.

8. Additionally, Examiner notes that regarding an extension indicator, (per pending Claims 8, 15, 20 & 28), White enumerates the reservation of the seven least significant bits of the first octet to ensure all fragment headers are distinguished from and other framing headers and/or flags which may be introduced during processing, (White – paragraph #0047), as well as an FCS frame for purposes of CRC error detection, (White – paragraph #0043), and Isfeld enumerates a 4-bit field for software specific command list entries, (Isfeld – Fig. 15 & Col. 25, lines 31-39), wherein either portion of the frame could obviously be used to extend, add or indicate the extension or addition of fields to

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the frame fragment control information. Thus Claims 4-8, 12-15, 17-20 & 24-28 are found to be unpatentable over the combined teachings of White and Isfeld.

9. Regarding Claim 11, the combined teachings of White and Isfeld are relied upon as noted herein. As noted above, White discloses a network system, method and apparatus for adaptive frame fragmentation incorporating a frame relay protocol, (paragraph #0043), comprising frames and frame fragments, (paragraphs #0043-0044), and payload data, (paragraph - #043), wherein it would have been obvious for said payload data to include a data segment extracted from a frame, as said frame may be any number of bytes in length, and wherein within a frame fragmentation apparatus and method, it would have been obvious to divide up large portions of data into smaller portions for faster and more reliable relay of the same. Thus Claim 11 is found to be unpatentable over the combined teachings of White and Isfeld.

Response to Arguments

10. Applicant's arguments filed 16 March 2006, have been fully considered but they are not persuasive. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

11. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections

are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As noted herein, Examiner finds that the combined teachings of White and Isfeld clearly and obviously read on Applicant's claimed invention, in its entirety, rendering the same unpatentable.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent 5,497,371 to Ellis;

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US Patent Pub. No. US 2002/0087716 A1 to Mustafa; and

US Patent US 6,172,990 B1 to Deb.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (571)-272-3916. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571)-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arrienne M. Lezak
Examiner
Art Unit 2143

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